

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-15. (Canceled)

16. (Currently amended) A gellan composition containing nucleic acid at a concentration of less than 10 ppm based on the weight of the gellan that is prepared by a method that is selected from:

- (a) a method for purifying gellan, comprising (i) combining DNase and gellan, the gellan being contaminated with nucleic acid, thereby providing a mixture, and (ii) maintaining the mixture under conditions where the DNase degrades at least some of the nucleic acid, thereby providing purified gellan,
- (b) the method of (a) wherein the gellan is contaminated with more than 100 ppm nucleic acid based on the total weight of gellan and nucleic acid,
- (c) the method of (a) wherein the purified gellan is contaminated with less than 10 ppm nucleic acid based on the total weight of gellan and nucleic acid,
- (d) the method of (a) wherein the purified gellan is contaminated with less than 50% of the nucleic acid that contaminated the gellan of step (i) of step (a)(i),

- (e) the method of (a) wherein the mixture further comprises a DNase deactivating agent,
- (f) the method of (e) wherein the DNase deactivating agent is sodium azide,
- (g) the method of (a) wherein the mixture is maintained at 30-45°C for at least 1 hour,
- (h) the method of (a) further comprising the step of monitoring the nucleic acid degradation,
- (i) the method of (a) further comprising deactivating the DNase present in admixture with the gellan,
- (j) the method of (a) wherein the DNase is deactivated by heating the DNase in admixture with the purified gellan to an inactivating temperature in excess of 50°C,
- (k) the method of (a) wherein the DNase is DNase_I,
- (l) the method of (a) further comprising adding boric acid to the gellan or the purified gellan,
- (m) the method of (a) further comprising adding imidazole to the gellan or the purified gellan,

- (n) the method of (a) further comprising adding a size-separation property modifying polymer to the gellan or the purified gellan, and
- (o) the method of (n) wherein the size-separation property modifying polymer is poly(ethylene oxide).

17. (Allowed) A gellan composition comprising water and gellan, the composition containing either no nucleic acid or nucleic acid at a concentration of less than 10 ppm based on the weight of the gellan.

18. (Allowed) The gellan composition of claim 17 that contains either no nucleic acid or nucleic acid at a concentration of less than 5 ppm based on the weight of the gellan.

19. (Allowed) The gellan composition of claim 17 that contains either no nucleic acid or nucleic acid at a concentration of less than 1 ppm based on the weight of the gellan.

20. (Currently amended) A gellan composition ~~suitable for use in preparing an electrophoresis medium~~, comprising:

- (a) gellan; and
- (b) either no nucleic acid or nucleic acid at a concentration of less than 10 ppm nucleic acid, based on the weight of gellan.

21. (Original) The composition of claim 20 further comprising a size-separation property modifying polymer.

22. (Original) The composition of claim 21 wherein the size-separation property modifying polymer is poly(ethylene oxide).

23. (Currently amended) The composition of claim 20 further comprising a buffer ~~composition suitable~~ for maintaining said composition at a pH of 5-9.

24. (Original) The composition of claim 23 wherein the buffer comprises imidazole or a salt thereof and boric acid or a salt thereof.

25. (Original) The composition of claim 20 further comprising EDTA or a salt thereof.

26. (Original) The composition of claim 20 further comprising a size-separation property modifying polymer, imidazole or a salt thereof, boric acid or a salt thereof, and EDTA or a salt thereof.

27. (Original) The composition of claim 20 further comprising a cross-linking agent.

28. (Original) The composition of claim 27 wherein the cross-linking agent is cystamine.

29. (Allowed) A kit comprising:

- (a) a matrix composition comprising gellan and nucleic acid at a concentration of less than 10 ppm based on the weight of the gellan;
- (b) buffer; and
- (c) cross linking agent.

30. (Allowed) The kit of claim 29 wherein the nucleic acid is present in the matrix composition at a concentration of less than 5 ppm based on the weight of the gellan.

31. (Allowed) The kit of claim 29 wherein the matrix composition further comprises a size-separation property modifying polymer.

32. (Allowed) The kit of claim 31 wherein the size-separation property modifying polymer is poly(ethylene oxide).

33. (Allowed) The kit of claim 29 further comprising a size-separation property modifying polymer.

34. (Allowed) The kit of claim 33 wherein the size-separation property modifying polymer is poly(alkylene oxide).

35. (Allowed) The kit of claim 29 wherein the matrix composition further comprises boric acid or a salt thereof.

36. (Allowed) The kit of claim 29 wherein the matrix composition further comprises imidazole or a salt thereof.

37. (Allowed) The kit of claim 29 wherein the matrix composition has a pH between 6.5 and 8.5.

38. (Allowed) The kit of claim 29 wherein the matrix composition further comprises a DNA stain.

39. (Allowed) The kit of claim 29 wherein the buffer comprises imidazole or a salt thereof.

40. (Allowed) The kit of claim 29 wherein the buffer comprises boric acid or a salt thereof.

41. (Original) The kit of claim 29 wherein the buffer comprises imidazole or a salt thereof, and boric acid or a salt thereof.

42. (Allowed) The kit of claim 29 wherein the cross linking agent is cystamine.

43-54. (Canceled)